AMENDMENTS TO THE CLAIMS

1.   (Canceled)

2.   (Currently Amended) A resources-reserving method comprising:~~comprising;~~

reserving communication resources in a packet communication system including a plurality of apparatuses ~~gang of apparatus that include~~, the plurality of apparatuses including a transmitter operable to transmit packets, ~~a relay~~ a plurality of relays operable to relay the packets, and a receiver operable to receive the packets, wherein a communication path between said transmitter and said plurality of relays, and a communication path between said receiver and said plurality of relays are unknown;

defining a plurality of links for interconnecting respective interfaces of at least two apparatuses ~~apparatus~~ selected from the ~~gang~~ plurality of ~~apparatus~~ apparatuses, wherein said transmitter, said plurality of relays and said receiver include respective interfaces;

collecting connection information including known connection state information between one of said plurality of relays and another of said plurality of relays;

collecting respective transfer information from each of said plurality of relays;

detecting a first link that directly connects between said one of said plurality of relays and said another of said plurality of relays in accordance with the collected connection information;

detecting a second link that directly connects between said transmitter and said one of said plurality of relays in accordance with the collected connection information and the collected transfer information;

detecting a third link that directly connects between said receiver and said one of said plurality of relays in accordance with the collected connection information and the collected transfer information;

defining a communication path between said transmitter and said receiver in accordance with the detected said first link, said second link, and said third link;

examining surplus resources for said first link, said second link, and said third link that form the communication path;

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comparing the surplus resources with a content of a requested reservation of communications resources for packet communication: and

~~defining a path between said transmitter and said receiver as an assembly of the links;~~

~~checking all of the links that form the path to examine how the links are connected together;~~ ~~and~~

reserving ~~the~~ communication resources of the communication path in accordance with the content of the requested reservation, when the surplus resources for said first link, said second link, and said third link that form the communication path comply with the content of the requested reservation ~~in accordance with content of requested reservation when all of the links that form the path are found to be connected together in accordance with the content of the requested reservation.~~

3. (**Currently Amended**) A resources-reserving method as defined in claim 2, further ~~comprising;~~ comprising:

refusing to reserve the communication resources in accordance with the content of requested reservation, when at ~~lease~~ least one of ~~the~~ said first link, said second link and said third link that form the communication path ~~links that form the path fails to meet~~ does not comply with the content of the requested reservation.

4. (**Currently Amended**) A resources-reserving method as defined in claim 2, further comprising a reservation controller, wherein ~~a~~ said reservation controller performs at least one of practicing ~~different from said relay practices~~ batch processing of handling ~~the links~~ said first link, said second link and said third link forming the communication path, comparing the surplus resources with the content of requested reservation, ~~checking the links to examine how the links can be connected together,~~ and reserving the resources.

5. (**Currently Amended**) A resources-reserving method as defined in claim 2, wherein the content of the requested reservation includes one of a ~~band~~ bandwidth and a priority, or both ~~of them~~.

6.   (Currently Amended) A resources-reserving method as defined in claim 2, wherein the first link, the second link and the third link links that form the path include a real link and a virtual links link in which the real link forms a communication path dependant upon respective positions of said transmitter and/or said receiver during reservation, while and the virtual link forms a communication path dependant upon respective moved positions of said transmitter and/or said receiver.

7. .   (Currently Amended) A resources-reserving method as defined in claim 6, wherein when the at least two same links of said first link, said second link and said third link weaves the path dependant upon establish the communication path based on respective positions of said transmitter and/or said receiver during reservation, with the communication path being dependant upon respective moved positions of said transmitter and/or said receiver, then it is assumed determined that only a single communication path is present in for the at least two the same links.

8.   (Currently Amended) A packet communication system comprising: comprising;
      a gang plurality of apparatus apparatuses including a transmitter operable to transmit packets, a plurality of relays relay operable to relay the packets, and a receiver operable to receive the packets, wherein a communication path between said transmitter and said plurality of relays, and a communication path between said receiver and said plurality of relays are unknown packets; and
      a reservation controller operable to reserve communication resources for packet communication, wherein said transmitter, said plurality of relays, and said receiver include respective interfaces, and at least one of said transmitter, said plurality of relays, and said receiver defines a plurality of links for interconnecting respective interfaces of at least two apparatuses of said plurality of apparatuses;
            wherein said reservation controller comprises:
                  a connection information-searching unit operable to collect connection information including known communication state information between one of said plurality of relays and another of said plurality of relays;
                  a transfer information-searching unit operable to collects transfer information from

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each of said plurality of relays; and

a reservation-determining unit, the reservation-determining unit being operable to detect the following:

a first link that directly connects between said one of said plurality of relays and said another of said plurality of relays in accordance with the collected connection information;

a second link that directly connects between said transmitter and said one of said plurality of relays in accordance with the collected connection information and the collected transfer information; and

a third link that directly connects between said receiver and said one of said plurality of relays in accordance with the collected connection information and the collected transfer information,

wherein said reservation-determining unit defines a communication path between said transmitter and said receiver in accordance with the detected said first link, said second link, and said third link; examines surplus resources for said first link, said second link, and said third link that form the communication path; compares the surplus resources for said first link, said second link, and said third link with a content of a requested reservation of communication resources for packet communication; and said reservation controller reserves the communication resources of the communication path in accordance with the content of the requested reservation, when the surplus resources for said first link, said second link, and said third link that form the communication path comply with the content of requested reservationdefine a link for interconnecting respective interfaces of two apparatus selected from the gang of apparatus, and to practice batch processing of checking a connected state of each of the links, and of reserving resources; the reservation controller operable to define a path between said transmitter and receiver as an assembly of the links; the reservation controller operable to check of the links that form the path to examine how the links are connected together; and the reservation controller operable to reserve the resources in accordance with content of requested reservation when all of the links that form the path are

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~~found to be connected together in accordance with the content of the requested reservation~~.

9.   (Currently Amended) A <u>packet communication system</u> ~~resources reserving method~~ as defined in claim 8, wherein said reservation controller refuses to reserve the resources <u>in accordance with the content of requested reservation,</u> when at ~~lease~~<u>least</u> one <u>of said first link, second link and third link</u> ~~of the links~~ that form the <u>communication</u> path fails to meet <u>does not comply with</u> the content of the requested reservation.

10.   (Currently Amended) A packet communication system as defined in claim 8, wherein the content of the requested reservation includes one of a ~~band~~<u>bandwidth</u> and <u>a</u> priority, or both ~~of them~~.

11.   (Currently Amended) A packet communication system as defined in claim 8, wherein the ~~links~~<u>first link, the second link, and the third link</u> that form the <u>communication</u> path include <u>a</u> real link and <u>a</u> virtual ~~links~~<u>link</u> in which the real link forms a <u>communication</u> path dependant upon respective positions of said transmitter and/or said receiver during reservation, ~~while~~<u>and</u> the virtual link forms a <u>communication</u> path dependant upon respective moved positions of said transmitter and/or said receiver.

12.   (Currently Amended) A packet communication system as defined in claim 11, wherein when ~~the~~ <u>at least two</u> ~~same~~ links ~~weaves the path~~<u>of said first link, said second link and said third link that form the communication path,</u> with the <u>communication</u> path <u>being</u> dependant upon respective moved positions of said transmitter and/or said receiver, then said reservation controller assumes that only a single <u>communication</u> path is present ~~in~~<u>for said at least two</u> ~~the same~~ link<u>s</u>.

13.   (Canceled)

14.   (Currently Amended) A packet communication system as defined in claim ~~13~~ <u>11</u>, wherein said reservation controller comprises:

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a virtual link information control unit operable to govern a connected state of each virtual link; and

a virtual link information-searching unit operable to search said virtual link information control unit for a connected state of a specified one of the virtual links.

15. **(Currently Amended)** A packet communication system as defined in claim ~~14~~ 11, wherein said transmitter and/or said receiver includes a virtual link information-registering unit operable to register information on virtual links that form a path dependent upon respective moved positions of said transmitter and/or said receiver.